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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Bernhard Hagl

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EXAMINER

YEAGLEY, DANIEL S

ART UNIT

PAPER NUMBER

3611

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/538,959	Applicant(s) HAGL, BERNHARD	
	Examiner Daniel Yeagley	Art Unit 3611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/14/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. If applicant desires to claim the benefit of a prior-filed application under 35 U.S.C. 119 or 120, a specific reference to the prior-filed application in compliance with 37 CFR 1.78(a) must be included in the first sentence(s) of the specification following the title or in an application data sheet. For benefit claims under 35 U.S.C. 120, 121 or 365(c), the reference must include the relationship (i.e., continuation, divisional, or continuation-in-part) of the applications.

If the instant application is a utility or plant application filed under 35 U.S.C. 111(a) on or after November 29, 2000, the specific reference must be submitted during the pendency of the application and within the later of four months from the actual filing date of the application or sixteen months from the filing date of the prior application. If the application is a utility or plant application which entered the national stage from an international application filed on or after November 29, 2000, after compliance with 35 U.S.C. 371, the specific reference must be submitted during the pendency of the application and within the later of four months from the date on which the national stage commenced under 35 U.S.C. 371(b) or (f) or sixteen months from the filing date of the prior application. See 37 CFR 1.78(a)(2)(ii) and (a)(5)(ii). This time period is not extendable and a failure to submit the reference required by 35 U.S.C. 119(e) and/or 120, where applicable, within this time period is considered a waiver of any benefit of such prior application(s) under 35 U.S.C. 119(e), 120, 121 and 365(c). A benefit claim filed after the required time period may be accepted if it is accompanied by a grantable petition to accept an unintentionally delayed benefit claim under 35 U.S.C. 119(e), 120, 121 and 365(c). The petition must be accompanied by (1) the reference required by 35 U.S.C. 120 or 119(e) and 37 CFR

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1.78(a)(2) or (a)(5) to the prior application (unless previously submitted), (2) a surcharge under 37 CFR 1.17(t), and (3) a statement that the entire delay between the date the claim was due under 37 CFR 1.78(a)(2) or (a)(5) and the date the claim was filed was unintentional. The Director may require additional information where there is a question whether the delay was unintentional. The petition should be addressed to: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

If the reference to the prior application was previously submitted within the time period set forth in 37 CFR 1.78(a), but not in the first sentence(s) of the specification or an application data sheet (ADS) as required by 37 CFR 1.78(a) (e.g., if the reference was submitted in an oath or declaration or the application transmittal letter), and the information concerning the benefit claim was recognized by the Office as shown by its inclusion on the first filing receipt, the petition under 37 CFR 1.78(a) and the surcharge under 37 CFR 1.17(t) are not required. Applicant is still required to submit the reference in compliance with 37 CFR 1.78(a) by filing an amendment to the first sentence(s) of the specification or an ADS. See MPEP § 201.11.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “industrial truck”, the “automatic steering”, the “course of the conductor loop on or under the underlying surface” and the “step-down gear mechanism” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

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3. The drawings are objected to under 37 CFR 1.84(h)(5) because Figure 1 show(s) modified forms of construction in the same view. Applicant should note that the gear mechanism shown in figure 1 shows features of claim 4 and claim 5 combined, where the gear mechanism is a step-up gear mechanism, such that gear 24 is larger than output gear 26 which would increase the rotational speed from the input side to the output side; as understood from applicants' page 7; however the brake 40 is not shown on the output side as required by claim 5, but is shown on the input side of the gear mechanism as required by the step-down gear mechanism of claim 4.

4. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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5. In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as "Annotated Sheets" and must be presented in the amendment or remarks section that explains the change(s) to the drawings. See 37 CFR 1.121(d)(1). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

Specification

6. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally **limited to** a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details. The language should be clear and concise and should not repeat information given in the title.

Correction is required. See MPEP § 608.01(b).

7. The disclosure is objected to because the specification is missing the section headings, each of the following lettered items should appear in upper case, without underlining or bold type, as section headings.

- (a) Title of the Invention.
- (b) Cross-References to Related Applications.
- (c) Background of the Invention.

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1. Field of the Invention.
 2. Description of the Related Art including information disclosed under 37 CFR 1.97 and 1.98.
 - (f) Brief Summary of the Invention.
 - (g) Brief Description of the Several Views of the Drawing(s).
 - (h) Detailed Description of the Invention.
 - (i) Claim or Claims (commencing on a separate sheet).
 - (j) Abstract of the Disclosure (commencing on a separate sheet).
- Appropriate correction is required.
8. The disclosure is objected to because of the following informalities:
- an application claiming the benefit of one or more prior filed copending nonprovisional applications or international applications designating the United States of America must contain or be amended to contain in the first sentence of the specification following the title, a reference to each such prior application, identifying it by application number or international application number and international filing date and indicating the relationship of the applications and the current status of any such prior applications.

Note; Cross-References to Related Applications: See 37 CFR 1.78 and MPEP §201.11.

Claim Objections

9. Claims 1, 2, 4, 5, 8 and 10 are objected to because of the following informalities:
- a. Regarding claim 8, line 2, the term “*the* steering motor” lacks proper antecedent basis, change the word “the” to --a--.
 - b. Regarding claim 10, line 3, the term “*the* motor shaft” lacks proper antecedent basis, change the word “the” to --a--.
 - c. Regarding claim 5, line 3, the term “*the* input side” lacks proper antecedent basis, change the word “the” to --a--.

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- d. Regarding claim 5, line 3, the term “*the* output side” lacks proper antecedent basis, change the word “the” to --a--.
- e. Regarding claim 4, line 3, the term “*the* input side” lacks proper antecedent basis, change the word “the” to --a--.
- f. Regarding claim 4, line 4, the term “*the* output side” lacks proper antecedent basis, change the word “the” to --a--.
- g. Regarding claim 2, line 3, the phrase “*the* instant of *the* switchover” lacks proper antecedent basis, and should be change to --an instant of a switchover--.
- h. Regarding claim 1, line 4, the term “*the* rolling direction” should be change to --a rolling direction--.
- i. Regarding claim 1, line 4-5, the term “*the* rotational position” should be change to --a rotational position--.

Appropriate corrections are required.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

11. Claim 3 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a movement part 60 of a brake being connected to a motor shaft 14, does not reasonably provide enablement for the movement part of the brake being connected to a steering shaft 28. The specification does not enable any person skilled in the art to which it pertains, or

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with which it is most nearly connected, to make and use the invention commensurate in scope with these claims. The steering shaft 28 of a steering force transmission device; as shown in figure 1, is connected to spur gear 26 which is coupled to spur gear 24 by meshing engagement which is further coupled by meshed engagement with an output shaft journal 18, in contrast to the movement part 60 of the brake which is connected to a motor shaft 14 at numeral 14a.

12. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

13. Claims 1 – 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. Regarding claim 1, line 15 and line 16, the words “it” are considered indefinite.
- b. Regarding claim 1, line 17, the word “type” is considered indefinite.
- c. Regarding claim 11, line 2, the term “*this* wheel” is considered indefinite.
- d. Regarding claim 9, line 3, the term “*a* common energy supply” is objected to because it is unclear if the term draws antecedent basis from “the current supply” cited in preceding claim 8, or if applicant is attempting to claim a different energy supply and if that energy is a current supply or some other form of common energy.
- e. Regarding claim 8, line 4, the term “*the* current supply” lacks sufficient antecedent basis, because it is unclear if “the current supply” is referring to the applied

current; cited in claim 6, or if applicant is attempting to claim a different current (a current supply of the steering motor).

f. Regarding claim 6, line 3 and line 4, the both phrases of “current is applied” appear to lack substance and are considered incomplete, because it is unclear what the current is being applied to; (i.e.; the electric steering motor; claim 9 or a brake or some other device).

g. Regarding claim 5, the limitations of “*the* input side” and “*the* output side” appear to lack sufficient substance and are considered incomplete; or the claim language of claim 5 as a whole is ambiguous, because it is unclear what the input side and the output side is referenced from “i.e.; the step-up gear mechanism or some other device or if the applicant is attempting to claim an input side of a step-up gear mechanism is connected to the steering force coupling-in-part and an output side of the step-up gear mechanism is connected to the at least one wheel.

h. Regarding claim 4, the limitations of “*the* input side” and “*the* output side” appear to lack sufficient substance and are considered incomplete; or the claim language of claim 4 as a whole is ambiguous, because it is unclear what the input side and the output side is referenced from “i.e.; the step-down gear mechanism or some other device or if the applicant is attempting to claim an input side of a step-up gear mechanism is connected to the steering force coupling-in-part and an output side of the step-up gear mechanism is connected to the at least one wheel.

Claim Rejections - 35 USC § 102

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

15. Claims 1 – 4 and 6 – 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Reed et al 3,044,567.

Reed shows an industrial truck with controllable steering having at least one steerable wheel and a steering system which is connected to the steerable wheel, wherein the steering system includes at least one wheel 43 which can be steered about a wheel steering axis (figure 9) that is substantially orthogonal with respect to an underlying surface, a steering force coupling-in part (upper portion of steering system) for coupling a steering force into the steering system and having a steering force transmission device for transmitting the steering force to the at least one wheel; as shown in figure 8, which brings about a change in the wheel steering angle of the at least one wheel, the steering system further comprises a steering angle limiting device (brake) which can be switched between an active state and an inactive state (column 4, line 5 – 16), that limits the wheel steering angle at least to a wheel steering angle range in the active state and does not limit the wheel steering angle of the at least one wheel in the inactive state, such that the brake is provided in such a way that, in the active state of the steering angle limiting device, the brake generates a brake force which limits (fixes) a rotation of the at least one wheel about the wheel steering axis to the predefined wheel steering angle range and the brake does not generate a brake force when in the inactive state of the steering angle limiting device, wherein the brake is an electromagnetic safety brake which generates a braking effect in a state in which no current is

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applied and does not generate a braking effect in a state in which current is applied, and further shows in figure 9; a step-down gear mechanism 47, 48 that are connected on an input side to the steering force coupling-in part and on an output side to the at least one wheel, wherein the brake is arranged on the input side of the step-down gear mechanism, and the steering system further comprises a steering motor in the form of an electric motor 45 which is connected to the steering force coupling-in part, and the steering force transmission device comprises a steering shaft 46 and a movement part of the brake (not shown) which is inherently connected to the steering shaft and motor shaft of the steering motor, as best understood; in order to transmit torque (column 2 – 4), wherein the steering angle limiting device switches into the active state if there is a disruption to the current supply of the steering motor, the brake being an electromagnetic safety brake which generates a braking effect in a state in which no current is applied and does not generate a braking effect in a state in which current is applied, wherein the electromagnetic safety brake and the electric steering motor are connected to a common energy supply (current).

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reed '567, in view of Matsuzaki et al JP59184918.

Reed disclosed an industrial vehicle (truck) with a controllable steering motor, but failed to disclose an automatic steering which follows a course of a conductor loop arranged on or under an underlying surface.

Matsuzaki shows an industrial vehicle (truck) which discloses the prior art of using an automatic steering operation to controllably steer a vehicle along a course using a conductor loop laid on the floor surface as claimed.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the industrial truck of Reed with an additional steering control feature of an automatic steering means that could follow an underlying surface conductor guide wire as suggested by Matsuzaki automatic steering system, in order to provide the industrial truck of Reed with an improved means for more efficiently conveying goods using an automatic steering system like that taught by Matsuzaki to additionally provide the industrial truck of Reed with an automatic steering means that can follow a guided course, if desired.

18. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reed '567.

Reed shows a steering system for an industrial truck having a step-down gear mechanism which is connected on an input side of the steering system to a steering force coupling-in-part which includes a brake on lower torque side of the gear mechanism with the output side of the step-down gear mechanism being connected to at least one wheel, so that output side of the gear mechanism has a reduced rotational speed and an increased drive force (torque) created by the step-down gear ratio, but failed to show the gear mechanism being a reversed step-up gear mechanism with the brake arranged on the output side.

Reed discloses the claimed invention except for the reversed gear ratio and brake arrangement of the gear mechanism being a step-up gear mechanism rather than a step-down gear mechanism. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have reversed the setup of the gear ratio of the gear mechanism and brake arrangement of Reed steering system, since it has been held that a mere reversal of essential working parts of a device involves only routine skill in the art. In re Einstein, 8 USPQ 167. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have simple reversed the setup arrangement of the gear ratio of the gear mechanism and brake of Reed from a step-down gear ratio to a step-up gear ratio, in order to provide the steering system of Reed industrial truck with an augmented output rotational speed to change the behavior and turning characteristics of the steering system, if desired, while leaving the brake on the reduced torque side of the gear mechanism for more efficient braking.

Conclusion

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Udden '986 and Dammeyer et al '509 show a steering system with a brake and motor.

Lawson et al '178 and Bierkarre et al '533 show an industrial truck with an automatic steering that follows an underlying course.

Dammeyer et al '728, Pardee '918, Albrecht et al '590 and Harter '058 show braking means on a shaft.

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20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Yeagley whose telephone number is (571)272-6655. The examiner can normally be reached on Mon. - Thur..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lesley D. Morris can be reached on (571) - 272 - 6651. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

D.Y.

**/Lesley D. Morris/
Supervisory Patent Examiner, Art Unit 3611**